

51. (New) The method of claim 47, wherein the encoding comprises the extensible Markup Language (XML) encoding.

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53. (New) A method for generating description records from multimedia content, comprising:

- identifying multimedia types in multimedia content;
- extracting multimedia objects to generate multimedia object descriptions from the multimedia content for at least one of the multimedia types;
- generating, from the multimedia object descriptions, multimedia object hierarchy descriptions by object hierarchy construction and extraction processing, for at least one of the multimedia types; and
- integrating the multimedia object descriptions and the multimedia object hierarchy descriptions to generate at least one description record to represent content embedded within the multimedia content.

REMARKS

The Office Action indicates that the drawings have been objected by the Draftsperson. Attached hereto is a Request for Approval of Corrected Drawings that addresses the concerns raised by the Draftsperson. Approval is respectfully requested.

The Office Action rejects claims 1-10 under 35 U.S.C. § 103 over Sezan and rejects claims 11-24 under 35 U.S.C. § 103 over Sezan in view of Patel. These rejections are traversed as they may be applied to new claims 25-53.

It is respectfully submitted that neither of the applied references disclose or suggest at least generating, from multimedia object descriptions, entity relationship graph descriptions for at least one of the multimedia times, as recited in new claim 25 or generating, from the multimedia object descriptions, multimedia object hierarchy descriptions by object hierarchy construction and extraction processing, for at least one of the multimedia types. Furthermore,

neither of the applied references discloses or suggest the integrating step subsequently recited in each of these claims. Accordingly, none of the claims of the present application are anticipated by or are obvious over the applied references. Applicants request withdrawal of the rejections.

For at least the above reasons, it is submitted that the application is in condition for allowance. Prompt consideration and allowance are solicited.

Attached hereto is a marked up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with Markings to Show Changes Made**".

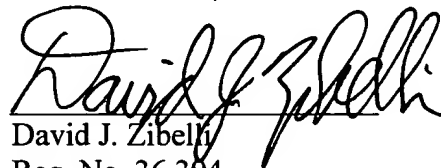
The Commissioner is hereby authorized to charge payment of any fees associated with this communication or credit any overpayment to the deposit account of Kenyon & Kenyon, Deposit Account No. 11-0600.

The Examiner is also invited to contact the undersigned attorney if any communication is believed to be helpful in advancing the examination of the present application.

Respectfully submitted,

Dated: March 24, 2003

By:


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APPENDIX

Version with Markings to Show Changes Made

IN THE CLAIMS:

Please cancel claims 1-24.

Please add new claims 25-53 as follows:

- 25 (New) A method for generating description records from multimedia content, comprising:
- identifying multimedia types in multimedia content;
 - extracting multimedia objects to generate multimedia object descriptions from the multimedia content for at least one of the multimedia types;
 - generating, from the multimedia object descriptions, entity relation graph descriptions for at least one of the multimedia types; and
 - integrating the multimedia object descriptions and the entity relation graph descriptions to generate at least one description record to represent content embedded within the multimedia content.
26. (New) The method of claim 25, further comprising generating, from the multimedia object descriptions, multimedia object hierarchy descriptions by object hierarchy construction and extraction processing, for at least one of the multimedia types.
27. (New) The method of claim 25, wherein the multimedia types include at least one of image, audio, video, synthetic, and text.
28. (New) The method of claim 25, wherein the extracting of multimedia objects further comprises:
- segmenting each multimedia content into segments including content from at least one of the multimedia types for the multimedia content; and
 - generating at least one feature description for at least one of the segments by feature extraction and annotation;

wherein the generated multimedia object descriptions comprise the at least one feature description for the at least one segment.

29. (New) The method of claim 28, wherein the segments are selected from the group consisting of local segments and global segments.

30. (New) The method of claim 28, further comprising selecting the at least one feature description from the group consisting of media, semantic and temporal features.

31. (New) The method of claim 29, wherein the media features are further defined by at least one feature description selected from the group consisting of data location, scalable representation and modality transcoding.

32. (New) The method of claim 29, wherein the semantic features are further defined by at least one feature description selected from the group consisting of keywords, who, what object, what action, why, when, where and text annotation.

33. (New) The method of claim 29, wherein the temporal features are further defined by at least one feature description consisting of duration.

34. (New) The method of claim 28, wherein the extracting of multimedia objects further comprises:

generating media object descriptions from the multimedia segment for one of the multimedia types by media object extraction processing;

generating media object hierarchy descriptions from the generated media object descriptions by object hierarchy construction and extraction processing; and

generating media entity relation graph descriptions from the generated media object descriptions by entity relation graph generation processing.

35. (New) The method of claim 34, wherein generating media object descriptions further comprises:

segmenting the content of each multimedia type in the multimedia object into segments within the multimedia object by media segmentation processing; and

generating at least one feature description for at least one of the segments by feature extraction and annotation;

wherein the generated media object descriptions comprise the at least one feature description for the at least one of the segments.

36. (New) The method of claim 35, further comprising the step of selecting the at least one feature description from the group consisting of media, semantic and temporal.

37. (New) The method of claim 35, wherein generating media object hierarchy descriptions generates media object hierarchy descriptions of the media object descriptions based on media feature relationships of media objects represented by the media object descriptions.

38. (New) The method of claim 35, wherein generating media object hierarchy descriptions generates semantic object hierarchy descriptions of the media object descriptions based on semantic feature relationships of media objects represented by the media object descriptions.

39. (New) The method of claim 35, wherein generating media object hierarchy descriptions generates temporal object hierarchy descriptions of the media object descriptions based on temporal feature relationships of media objects represented by the media object descriptions.

40. (New) The method of claim 35, wherein generating media object hierarchy descriptions generates media object hierarchy descriptions of the media object descriptions based on relationships of media objects represented by the media object descriptions, and wherein the relationships are selected from the group consisting of media feature relationships, semantic feature relationships, temporal feature relationships, and spatial feature relationships.

41. (New) The method of claim 35, wherein generating media entity relation graph descriptions generates entity relation graph descriptions of the media object descriptions based on relationships of media objects represented by the media object descriptions, wherein the

relationships are selected from the group consisting of media feature relationships, semantic feature relationships, temporal feature relationships and spatial feature relationships.

42. (New) The method of claim 26, wherein generating multimedia object hierarchy descriptions generates multimedia object hierarchy descriptions of the multimedia object descriptions based on media feature relationships of multimedia objects represented by the multimedia object descriptions.

43. (New) The method of claim 26, wherein generating multimedia object hierarchy descriptions generates semantic object hierarchy descriptions of the multimedia object descriptions based on semantic feature relationships of multimedia objects represented by the multimedia object descriptions.

44. (New) The method of claim 26, wherein generating multimedia object hierarchy descriptions generates temporal object hierarchy descriptions of the multimedia object descriptions based on temporal feature relationships of multimedia objects represented by the multimedia object descriptions.

45. (New) The method of claim 26, wherein generating multimedia object hierarchy descriptions generates multimedia object hierarchy descriptions of the multimedia object descriptions based on relationships of multimedia objects represented by the multimedia object descriptions, wherein the relationships are selected from the group consisting of media feature relationships, semantic feature relationships, temporal feature relationships and spatial feature relationships.

46. (New) The method of claim 25, wherein generating entity relation graph descriptions generates the entity relation graph descriptions of the multimedia object descriptions based on relationships of multimedia objects represented by the multimedia object descriptions, wherein the relationships are selected from the group consisting of media feature relationships, semantic feature relationships, temporal feature relationships and spatial feature relationships.

47. (New) The method of claim 25, further comprising receiving and encoding the multimedia object descriptions into encoded description information, and storing the encoded description information as the at least one description record.
48. (New) The method of claim 26, further comprising combining the multimedia object description, the multimedia object hierarchy descriptions, and the entity relation graph description to form a multimedia description, and receiving and encoding the multimedia description into encoded description information, and storing the encoded description information as the at least one description record.
49. (New) The method of claim 47, wherein the encoding comprises binary encoding.
50. (New) The method of claim 48, wherein the encoding comprises binary encoding.
51. (New) The method of claim 47, wherein the encoding comprises the extensible Markup Language (XML) encoding.
52. (New) The method of claim 47, wherein the encoding comprises the extensible Markup Language (XML) encoding.
53. (New) A method for generating description records from multimedia content, comprising:
 identifying multimedia types in multimedia content;
 extracting multimedia objects to generate multimedia object descriptions from the multimedia content for at least one of the multimedia types;
 generating, from the multimedia object descriptions, multimedia object hierarchy descriptions by object hierarchy construction and extraction processing, for at least one of the multimedia types; and
 integrating the multimedia object descriptions and the multimedia object hierarchy descriptions to generate at least one description record to represent content embedded within the multimedia content.